

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A computer readable data storage medium storing software for supporting a plurality of intelligent messaging network servers in an intelligent messaging network, the software comprising:

a first code segment handling registration of a first intelligent messaging network server of said plurality of intelligent messaging network servers in said intelligent messaging network, wherein registration comprises storing a server id and a server type for said first intelligent messaging network server in a database storing server ids and server types for said plurality of intelligent messaging network servers;

a second code segment for connecting said first intelligent messaging network server to a second intelligent messaging network server of said plurality of intelligent messaging network servers; and

a third code segment encapsulating communication between said first intelligent messaging network server and said second intelligent messaging network server;

wherein a connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

2. (previously presented) The computer readable data storage medium of claim 1, wherein:

said first code segment specifies a server class for said first intelligent messaging network server.

3. (previously presented) The computer readable data storage medium of claim 1, wherein:

said first code segment further specifies at least one of a packet header, an IP address, and a listener port.

4. (previously presented) The computer readable data storage medium of claim 1, wherein:

said third code segment generates a standard packet for communication between said first intelligent messaging network server and said second intelligent messaging network server.

5. (original) The computer readable data storage medium of claim 4, wherein the standard packet includes at least one of:

- a header length;
- protocol flags;
- packet length;
- database ID;
- link station ID;
- message ID;
- customer ID;
- port number;
- network header; and
- message body.

6. (original) The computer readable data storage medium of claim 5, wherein the network header includes at least one of:

- a compression indicator;
- a security indicator;
- a service type indicator,
- a message type indicator; and
- a server ID.

7. (original) The computer readable data storage medium of claim 1, further comprising:

- a fourth code segment encapsulating a transport header;
- a fifth code segment notifying a sender of a success or failure of a transmission;
- a sixth code segment segmenting messages over a pre-determined length into message segments;
- a seventh code segment assembling messages segments into messages;
- an eighth code segment resending messages that are not acknowledged within a pre-determined time;
- a ninth code segment pacing a transmission of messages larger than a predetermined number of segments;
- a tenth code segment detecting duplicate message segments; and
- an eleventh code segment detecting duplicate messages.

8. (original) The computer readable data storage medium of claim 1, further comprising:

- a fourth code segment generating acknowledgement messages;
 - a fifth code segment processing the acknowledgement messages;
 - a sixth code segment compressing and decompressing messages;
- and
- a seventh code segment encrypting and decrypting messages.

9. (original) The computer readable data storage medium of claim 7, further comprising:

a twelfth code segment encapsulating a communication layer.

10. (previously presented) The computer readable data storage medium of claim 8, further comprising:

an eighth code segment processing application specific messages;

and

a ninth code segment providing special compression services; and

a tenth code segment providing special security services.

11-23. (canceled)

24. (currently amended) A method for supporting a plurality of intelligent messaging network servers in an intelligent messaging network, comprising:

providing registration of a first intelligent messaging network server of said plurality of intelligent messaging network servers in said intelligent messaging network, wherein registration comprises storing a server id and server type for said first intelligent messaging network server in a database storing server ids and server types for said plurality of intelligent messaging network servers;

providing connectivity of said first intelligent messaging network server and a second intelligent messaging network server of said plurality of intelligent messaging network servers; and

encapsulating communication between said first intelligent messaging network server and said second intelligent messaging network server;

wherein a connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

25. (previously presented) The method of claim 24, further comprising:

specifying a server class for said first intelligent messaging network server during registration.

26. (previously presented) The method of claim 24, further comprising:

specifying at least one of a packet header, an IP address and a listener port during registration.

27. (previously presented) The method of claim 24, further comprising:

generating a standard packet for communication between said first intelligent messaging network server and said second intelligent messaging network server during encapsulation.

28. (previously presented) The method of claim 27, wherein the standard packet includes at least one of:

- a header length;
- protocol flags;
- packet length;
- database ID;
- link station ID;
- message ID;
- customer ID;
- port number;
- network header; and
- message body.

29. (previously presented) The method of claim 28, wherein the network header includes at least one of:

- a compression indicator;
- a security indicator;
- a service type indicator;
- a message type indicator; and
- a server ID.

30. (previously presented) The method of claim 24, further comprising:

- encapsulating a transport header;
- notifying a sender of a success or failure of a transmission;
- segmenting messages over a pre-determined length into message segments;
- assembling the messages segments into messages;
- resending messages that are not acknowledged within a pre-determined time;
- padding a transmission of messages larger than a pre-determined number of segments;
- detecting duplicate message segments; and
- detecting duplicate messages.

31. (previously presented) The method of claim 24, further comprising:

- generating acknowledgement messages;
- processing the acknowledgement messages;
- compressing and decompressing messages; and
- encrypting and decrypting messages.

32. (previously presented) The method of claim 30, further comprising:

encapsulating a communication layer.

33. (previously presented) The method of claim 31, further comprising:

processing application specific messages;
providing special compression services; and
providing special security services.

34-46. (canceled)

47. (currently amended) A software development kit (SDK) encoded on a computer readable data storage medium, comprising:

registration components for handling registration of intelligent messaging network servers with an intelligent messaging network, wherein registration comprises storing server ids and server types for said intelligent messaging network servers in a database;

connectivity components for connecting said intelligent messaging network servers to one another; and

communication components for encapsulating communication between said intelligent messaging network servers;

wherein a connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

48-49. (canceled)

50. (previously presented) The computer readable data storage medium of claim 1, wherein:

said second segment facilitates searching said database based on said server type to identify said second intelligent messaging network server, said second intelligent messaging network server being of a intelligent messaging network server type that said first intelligent messaging network server desires to connect with.

51. (previously presented) The computer readable data storage medium of claim 50, wherein:

said second segment facilitates a handshake procedure determining a validity of a connection between said first intelligent messaging network server and said second intelligent messaging network server.

52. (previously presented) The computer readable data storage medium of claim 1, wherein:

said intelligent messaging network server types are associated with functions performed by said plurality of intelligent messaging network servers.

53. (previously presented) The computer readable data storage medium of claim 1, wherein:

said intelligent messaging network server types comprise at least one of a protocol gateway servers, message router servers, and back-end servers.

54. (previously presented) The computer readable data storage medium of claim 2, wherein:

said intelligent messaging network server class is associated with one of a network access protocol for a network connecting a client to said first intelligent messaging network server and an application executed by said first intelligent messaging network server.

55. (previously presented) The computer readable data storage medium of claim 1, wherein:

said third code segment encapsulates a network access protocol used to transmit data from a client device to said first intelligent messaging network server, wherein said network access protocol is transparent to said second intelligent messaging network server receiving said data from said first intelligent messaging network server.

56. (previously presented) The method of claim 24, wherein providing connectivity between the first intelligent messaging network server and the second intelligent messaging network server further comprises:

searching said database based on said server type to identify said second intelligent messaging network server, said second intelligent messaging network server being of an intelligent messaging network server type that said first intelligent messaging network server desires to connect with.

57. (previously presented) The method of claim 56, wherein providing connectivity between the first intelligent messaging network server and the second intelligent messaging network server further comprises:

facilitating a handshake procedure to determine a validity of a connection between said first intelligent messaging network server and said second intelligent messaging network server.

58. (previously presented) The method of claim 24, wherein:
said intelligent messaging network server types are associated with functions performed by said plurality of intelligent messaging network servers.

59. (previously presented) The method of claim 24, wherein the intelligent messaging network server types comprise:

at least one of a protocol gateway server, message router server, and back-end server.

60. (previously presented) The method of claim 25, wherein:

said intelligent messaging network server class is associated with at least one of a network access protocol for a network connecting a client to said intelligent messaging network first server and an application executed by said first intelligent messaging network server.

61. (previously presented) The method of claim 24, wherein encapsulating communication between the first intelligent messaging network server and the second intelligent messaging network server further comprises:

encapsulating a network access protocol used to transmit data from a client device to said first intelligent messaging network server, said network access protocol is transparent to said second intelligent messaging network server receiving said data from said first intelligent messaging network server.

62. (currently amended) An apparatus comprising:

means for providing registration of a first intelligent messaging network server of a plurality of intelligent messaging network servers in an intelligent messaging network, wherein registration comprises storing a server id and a server type for said first intelligent messaging network server in a database storing server ids and server types for said plurality of intelligent messaging network servers;

means for providing connectivity of said first intelligent messaging network server to a second intelligent messaging network server of said plurality of intelligent messaging network servers; and

means for encapsulating communication between said first intelligent messaging network server and said second intelligent messaging network server;

wherein a connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

63. (currently amended) A method for supporting an intelligent messaging network servers in an intelligent messaging network, comprising:

providing an intelligent messaging network server in said intelligent messaging network;

using a connectionless transport protocol within said intelligent messaging network to facilitate communications between a client and a server;

wherein said connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

64. (previously presented) The method of claim 63, further comprising:

specifying a server class for said server.

65. (currently amended) An intelligent messaging network, comprising:

an intelligent messaging network server in said intelligent messaging network;

a connectionless transport protocol within said intelligent messaging network to facilitate communications between a client and a server;

wherein said connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

66. (previously presented) The intelligent messaging network of claim 65, further comprising:
specifying a server class for said server.

67. (currently amended) An intelligent messaging network, comprising:

means for providing an intelligent messaging network server in said intelligent messaging network;

means for using a connectionless transport protocol within said intelligent messaging network to facilitate communications between a client and a server;

wherein said connectionless transport protocol is used within said intelligent messaging network to allow said plurality of intelligent messaging network servers to communicate with one another and to provide[[s]] for networking services comprising message segmentation and reassembly, message retries, message duplication detection, and message ACK and NACK service.

68. (previously presented) The intelligent messaging network of claim 67, further comprising:

means for specifying a server class for said server.